

# AUSTRALIAN BUREAU OF STATISTICS Canberra

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OVERTIME, AUSTRALIA, FEBRUARY 1980

## INQUIRIES

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## MAIN FEATURES

*NOTE: The survey estimates are subject to sampling variability, as explained in paragraph 12.*

From the February 1980 survey weekly average overtime was estimated to be:

1.4 hours per employee (2.3 hours per employee in manufacturing industries)

7.0 hours per employee working overtime (manufacturing 7.7)

20.0 per cent of employees in the survey worked overtime.

## EXPLANATORY NOTES

### Introduction

The ABS conducts a monthly sample survey of employers to obtain information about overtime hours worked. The survey is carried out by telephone to make it easier for respondents to provide the information, and to reduce delays in collection and publication of results.

2. Information on overtime worked by production employees in larger private factories has been collected for many years by the Commonwealth Employment Service and published in *Monthly Review of the Employment Situation*. The statistics from that collection are not directly comparable with those from the ABS survey.

3. The surveys, which commenced in July 1979, are generally conducted in respect of the last week of the pay-period ending on or before the third Friday of each month. However, in order to ensure that the survey timetable is met, it is necessary to accept data for other periods from some respondents.

### Scope of the survey

4. All employees in Commonwealth, State and local government employment were represented in the survey, but certain groups of private employees were not represented. The private sector sample was selected from payroll taxpayers, and employees of employers not subject to payroll tax (except hospitals) were excluded.

Also excluded were employees in agriculture and in private households employing staff, and members of the permanent defence forces. At the time of the selection of the sample, payroll tax was payable by employers in the States and Territories paying \$60,000 (Queensland \$125,000) or more a year in wages and salaries.

### Sample design

5. Respondents included in the survey were selected from lists of private and government employers stratified by State, industry and number of employees. Employers with 1,200 or more employees were fully enumerated and a sample was selected from the remainder of employers. The total number of employers selected in the survey was about 3,100.

6. The small size of the sample has imposed some restrictions on the amount of detail that can be published. Estimates are provided for Australia, by industry groups, and for each State and Territory, for average hours of overtime per employee working overtime and per employee in the survey, and for the proportion of employees who worked overtime.

### Definitions

7. *Overtime* is time worked in excess of award, standard or agreed hours of work for which payment is received. Excluded is any overtime for which employees would not receive payment, e.g. unpaid overtime worked by managerial, executive, etc, staff, normal shiftwork and standard hours paid for at penalty rates.

8. *Overtime hours* represent the number of hours of overtime actually worked. Respondents were instructed not to convert overtime hours to their ordinary time equivalent. For example, 100 man-hours of overtime paid for at time and a half and 20 man-hours at double time would be counted as 120 hours, not 190.

9. *Average hours of overtime per employee working overtime* is calculated by dividing total overtime hours worked in a particular group (e.g. industry, State or Territory) by the number of employees who worked overtime in the same group.

10. *Average hours of overtime per employee in the survey* is calculated by dividing total overtime hours worked in a particular group by the total number of employees in the same group (including those who did not work overtime).

11. *Number of employees* is the number on the payroll on the last day of the pay-period ending on or before the survey date. *Included* are persons on paid leave, (recreation leave, sick leave, long service leave, etc). *Excluded* are persons on leave without pay, and persons on strike, locked out or stood down as a result of an industrial dispute, for the whole of the reference period.

#### **Reliability of the estimates**

12. Since the estimates in this publication are based on information obtained from a sample of employers, they may differ from the figures that would have been produced if the information had been obtained from all employers within the scope of the survey. One measure of the likely difference is given by the *standard error*. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all employers had been included and about nineteen chances in twenty that the difference will be less than two standard errors.

13. Approximate standard errors of the February 1980 estimates are shown in the table. An example of their use is as follows. The estimate for Australia of average overtime hours per employee in the survey is 1.4. It will be seen that the standard error of this estimate is .04 and therefore there are about two chances in three that the value that would have been produced if all employers had been included will be within the range 1.36 to 1.44 hours, and about nineteen chances in twenty that the value will be within the range 1.32 to 1.48 hours.

14. Standard errors of the differences between estimates for successive months are approximately the same as the standard errors of the estimates themselves. When comparing figures for successive months the effect of rounding the figures to one decimal place should be noted. Cases where apparent changes are in fact not significant at the one standard error level (see paragraph 12), or significant changes in unrounded figures have not

resulted in changes to rounded figures, are noted in the tables.

15. In addition to sampling variability the estimates may be affected by imperfections in reporting, e.g. errors and deficiencies in completing returns, and by other factors. Inaccuracies of this kind are referred to as non-sampling errors, and they may occur in any collection, whether it be a full count or a sample. Every effort is made to reduce these errors to a minimum by careful instructions and efficient operational procedures.

16. Although a considerable number of employees are not included in the survey (see paragraph 4), it is considered that average overtime hours for Australia, States and Territories would not be significantly affected. However, for certain industries such as construction and retail trade, in which the proportion of employees covered by payroll tax returns is below the average, the estimates may be somewhat less reliable.

#### **Seasonal factors**

17. Overtime figures at different dates may be affected by seasonal influences. Calculation of seasonally adjusted figures will not be possible until results of surveys for two or three years are available.

#### **Related publications**

18. Users may also wish to refer to the following publications which are available on request :

*Earnings and Hours of Employees, Distribution and Composition* (6306.0) – annual survey in May.

*Earnings and Hours of Employees* (6304.0) – annual survey in October.

*The Labour Force, Australia* (6203.0) – monthly.

19. All current publications produced by the ABS are listed in *Catalogue of Publications* (1101.0) which is available free of charge from any ABS office.

R. J. CAMERON  
Australian Statistician

TABLE 1. OVERTIME : AUSTRALIA (a)

Month	<i>Average weekly overtime hours</i>		<i>Proportion of employees in the survey working overtime (per cent)</i>
	<i>Per employee in the survey (b)</i>	<i>Per employee working overtime (b)</i>	
1979 -			
July	1.3	6.5	19.9
August	1.4	6.9	19.9
September	(d)1.3	6.8	19.6
October	1.4	6.9	20.6
November	(d)1.5	7.0	20.7
December	1.6	7.2	21.7
1980 -			
January	1.2	6.9	16.7
February	1.4	7.0	20.0
<i>Standard error of February</i>			
<i>1980 estimates (c)</i>	<i>.04</i>	<i>.10</i>	<i>.37</i>

(a) Excludes agriculture and services to agriculture (ASIC Sub-divisions 01 and 02) and private households employing staff (ASIC Sub-division 94). (b) For definitions see paragraphs 7 to 11. (c) See paragraphs 12 and 13. (d) Movement from the previous month is not statistically significant.

TABLE 2. OVERTIME : INDUSTRIES, AND STATES AND TERRITORIES, FEBRUARY 1980 (a)

	<i>Average weekly overtime hours</i>		<i>Proportion of employees in the survey working overtime</i>		
	<i>Per employee in the survey (b)</i>		<i>Per employee working overtime (b)</i>		<i>Per cent</i>
	<i>Hours</i>	<i>Standard error (c)</i>	<i>Hours</i>	<i>Standard error (c)</i>	
<b>STATES AND TERRITORIES</b>					
New South Wales	1.5	.07	7.0	.15	22.0
Victoria	1.5	.10	7.6	.26	19.7
Queensland	1.1	.06	6.0	.14	18.5
South Australia	1.0	.07	5.7	.18	17.2
Western Australia	1.5	.09	7.3	.19	20.3
Tasmania	1.3	.08	6.7	.20	18.7
Northern Territory	2.1	.17	8.9	.37	23.2
Australian Capital Territory	0.9	.06	8.3	.21	10.9
<b>INDUSTRIES, AUSTRALIA</b>					
Mining	4.7	.20	8.7	.19	53.9
Manufacturing	2.3	.08	7.7	.13	29.2
Food, beverages and tobacco	2.8	.25	7.9	.35	35.5
Textiles; clothing and footwear	1.3	.19	8.0	.64	16.3
Paper, printing, etc.	1.8	.34	6.6	.66	28.0
Chemical, petroleum and coal products	2.0	.27	7.4	.44	27.2
Basic metal products	3.8	.15	8.4	.18	44.4
Fabricated metal products; other machinery, etc.	2.4	.24	8.0	.37	30.2
Transport equipment	1.4	.07	6.7	.13	21.1
Other (d)	2.1	.19	7.6	.32	27.4
Electricity, gas and water	1.7	.02	7.4	.07	23.1
Construction	1.9	.21	6.9	.43	28.1
Wholesale trade	1.2	.12	6.9	.31	17.4
Retail trade	0.6	.07	4.0	.24	15.4
Transport and storage; communication	2.4	.15	6.9	.22	35.2
Public administration and defence (e)	0.4	.08	6.9	.69	6.4
Other	0.7	.09	5.4	.38	12.4

(a) Excludes agriculture and services to agriculture (ASIC Sub-divisions 01 and 02) and private households employing staff (ASIC Sub-division 94). (b) For definitions see paragraphs 7 to 11. (c) See paragraphs 12 and 13. (d) ASIC Sub-divisions 25, 28 and 34. (e) Excludes defence forces.